

AFRE Accounting and Financial Review, 6(3): 372-383, 2023 https://jurnal.unmer.ac.id/index.php/afr

Transforming Green Accounting Strategies in Online Transportation: A Critical Analysis

Allen Pranata Putra¹, Wasiaturrahma², and Eko Supeno³

- 1,2Faculty of Economics and Business, Universitas Airlangga
- Jl. Airlangga 4-6 Surabaya, 60286, Indonesia
- ³Faculty of Social and Political Sciences, Universitas Airlangga
- Jl. Dharmawangsa Dalam, Airlangga, Surabaya, 60286, Indonesia

Article infomation

Abstract

This study aims to explore the tightening of green accounting strategies and suggest the right use in online transportation companies. This research was conducted in East Java involving 112 research informants with several related public officials. This study uses indepth interviews and data reduction as data collection techniques related to green accounting strategies. The right calculation to implement an environmental accounting strategy triggers Elkington's three pillars, namely: 1) Environmental accounting; 2) Social accounting; 3) Financial accounting. The findings of conventional transportation research that want to survive in transportation services must be able to innovate at least the fundamental business mechanisms that are run. The application of green accounting has the potential to increase company profitability, this is based on significant influences that indirectly increase profitability. This increase is due to the positive image built in the community so that it makes a good comparative advantage.

counting; Online Transportation

Digital Disruption; Green Ac-

ISSN (print): 2598-7763 ISSN (online): 2598-7771 Citation: Putra, Allen Pranata Putra, Wasiaturrahma, Supeno, Eko. (2023). Transforming Green Accounting Strategies in Online Transportation: A Critical Analysis. AFRE Accounting and Financial Review. 6(3): 372-383

☑ Corresponding Author: Wasiaturrahma

Tel. /Fax. E-mail:

Keywords:

rahma@feb.unair.ac.id

JEL Classification: M41, Q56

DOI: https://doi.org/10.26905/afr.v6i3.10454

1. Introduction

Transportation cases in East java experience a dilemma of legal legality decisions that underlie business processes. This context requires additional actors to be involved with some of the key requirements for consideration of proposed transportation plans. Ecological considerations of transportation are important because carbon dioxide equivalent emissions from transportation make up the largest share of total emissions responsible for negative impacts (Demir et al., 2015). Many mathematical models have been developed to solve such complex transportation problems (Agamez-Arias & Moyano-Fuentes, 2017), but green logistics in this context is still not adequately covered (Demir et al.,

2016). In a more complex study, Qu et al., (2016) examined the problem of intermodal transportation with consideration of emissions and transfers.

Environmental accounting aims to collect, identify, calculate and analyze material and energy costs. In addition, the analysis of internal reporting and the use of environmental cost information, decision-making processes and efficient decision adoption will contribute to the environment (Latifah & Soewarno, 2023). Environmental management accounting strategy is a system formed to help the company's internal decisions better.

Changes in consumer stigma and volatile environmental empirical conditions will accelerate the pace of new product introduction, but these conditions have a negative impact on the ecological integrity of the environment (Palmer &; Truong, 2017). The new paradigm of the 21st century has now given rise to a sustainable accounting system known as green accounting. This concept initiates the calculation of a country's income by considering the impact of economic damage and resource depletion (Rounaghi, 2019). Exact calculations to implement an environmental accounting strategy that trigger the three pillars of Elkington, namely: 1) Environmental accounting; 2) Social accounting; 3) Financial accounting.

Commercialization activities depend on the availability of energy and natural resources, even when economic benefits have been provided often some management companies do not provide environmental care and maintenance measures (González et al., 2019; Van Thanh et al., 2016). Empirical studies show that production activities in the mining sector are mining is the highest level of natural resource exploitation (ul Haq &; Boz, 2020; Wu et al., 2020).

Technological changes in the field of transportation are mentioned theoretically as disruption. Disruption is a period that changes not only the way of business, but the fundamentals of the business mechanism that is carried out (Latifah, 2019; Sugiarto, 2018; Suripto, 2019; Suteja & Pasundan, 2020). Disruption does not occur only in the economic sector, but almost all fields that use technological updates. In general, transportation planning and management need to improve system performance at the time of disruption and reduce the negative impacts produced (Besinovic, 2020; Pan et al., 2021; Yin et al., 2022).

This research takes the East java context because at least legality is still less anticipatory of the disruption that occurs. The negative impact of disruption will massively occur in various regions in East java. Currently, some of the problems that need more attention in East java are about the management of online transportation (Ausrianti et al., 2020; Bilal et al., 2021; Tuti, 2020). The negative impact of disruption from an economic point of view is instantaneous, practical and dynamic changes in lifestyle behavior (Nasution et al., 2020; RS, 2023; Santosa, 2021).

Kasali (2019) supports the application of disruption theory and concludes that those who can survive the onslaught of disruption are parties who innovate highly. The next implication of disruption theory described by Christensen et al., (2018) divides the two groups that are in conflict in disruption, namely the incumbent and the new entrant. Incumbents are long-time players in the eco-

nomic mechanism who want consistent sustainability, this is because incumbents tend to be reluctant to change the structure of their economic activities. Meanwhile, new entrants are emerging with high innovation to be able to beat the old economic structure which is considered very slow, lacks innovation, and does not meet the complex needs of consumers.

While successful incumbents are only defined as their sustainability and defense against preconceived market mechanisms. The phenomenon of incumbent collapse in disruption shows that the use of high innovation from new entrants can erode definitively the originally stable market share (Akhir, 2020; Santoso & Wardhani, 2018; Setiyono & Prapanca, 2021). Furthermore, companies that rethink to implement a company strategy that has high innovation will be able to survive the onslaught of disruption that occurs (Sugiarto, 2018). Disruptive innovation integrates the theory of social capital owned by incumbents, while new entrants do not have qualified social capital (Mahto et al., 2020).

Incumbents who do not innovate will be used by new entrants to pave the way for success, this is because new entrants do not have a decent distribution structure like those owned by incumbents (Vergara & Pasola, 2021). Disruption innovation analysis Petzold et al., (2019) appears to be caused by the dynamics of: 1) Entry time and influencing processes; 2) Synchronization of events and actions formed; 3) Adjustment of strategic actions. Incumbents are less likely to disrupt incumbents than incumbents who disrupt themselves to survive in market mechanisms (Callander & Matouschek, 2022). This study aims to examine the transformation of online transportation in East java and examine the resilience of new entrants to disrupt incumbents.

This research focuses on the development and implementation of autonomous vehicles that change the way online transportation functions. This study explores several important aspects of the development of good autonomous vehicles, the regulations and policies needed to support the use of autonomous vehicles in online transportation and the social and economic impacts of the use of technology adoption. Previous research includes the use of artificial intelligence (AI) and data analysis to improve route efficiency, traffic management, experience in online transportation services (Abduljabbar et al., 2019; Babar &; Burtch, 2020; Contreras & Paz, 2018; Gomez et al., 2021; Henao & Marshall, 2019b, 2019a). In addition, research on

support infrastructure, such as the development of efficient electric charging stations and reliable communication networks, is also important in facilitating the growth and sustainability of online transportation (Das et al., 2020; Imoize et al., 2021; Ravi &; Aziz, 2022; Sechilariu et al., 2019). The continuity of research development in this field is expected to find innovations that optimize online transportation operations, increase safety and efficiency and reduce environmental impact.

2. LiteratureReview

Internalization Theory

Internalization theory argues that external costs resulting from the production process of an economic activity must be internalized into economic decision-making (Buckley &; Casson, 2019; Elijah et al., 2019; Narula et al., 2019). The context of online transportation interprets that environmental costs generated by ride-hailing services, such as greenhouse gas emissions, energy use, and waste management must be calculated and included in operational cost calculations and investment decisions. The application of externalized cost theory to online transportation indicates that transportation service companies can consider directly the environmental impact of their activities. They are able to identify and measure environmental costs associated with the use of their business activities, such as carbon emissions and fossil fuel use (Ali et al., 2021; Burgess et al., 2020; Martins et al., 2021; Sun et al., 2018). The application of this kind of green accounting can be an important tool to measure and report the cost of environmental improvements separately from general operating costs.

By including the cost of environmental improvements in the calculation of operational costs, transportation companies will have more complete data on the financial impact of their business activities. This encourages companies to look for ways to reduce the cost of environmental improvement by adopting more environmentally friendly activity practices, such as investment in electric vehicles (Cai &; Li, 2018; Li et al., 2020; Porter & Kramer, 2018; Yong et al., 2020). Long-term implementation will help reduce the negative environmental impact of ride-hailing services (Bokányi &; Hannák, 2020; Chen et al., 2021; Khattak et al., 2021).

Environmental cost considerations in making investment decisions cause companies to be more careful in choosing environmentally friendly technology and infrastructure. Business actors can prioritize the use of more energy efficient technology, reduce carbon emissions, and manage waste well (Naidoo &; Gasparatos, 2018; Rodriguez et al., 2021). Internalization theory encourages online transportation companies to consider environmental impacts directly and take responsibility for reducing these negative impacts.

Overall, the application of internalization theory to online transportation through green accounting can help create economic incentives that promote environmental sustainability. When the cost of environmental improvements is calculated directly in operational costs and investment decisions, ride-hailing companies can play an active role in reducing the negative environmental impact of their services and contributing to more sustainable transportation.

Disruptive Innovation Theory

Disruptive innovation theory explains that new technological changes can disrupt or transform established businesses by coming up with simpler, affordable or efficient products or services (Wasiaturrahma et al., 2022). In this context, at least the theory of disruptive innovation in the transportation industry business contains several important things as follows: First, a paradigm shift, namely disruptive innovation theory, describes a paradigm shift in the transportation industry. When a new technology is created, such as online transportation, traditional business models such as conventional taxis face disruption. Technology presents a more efficient, easy, cheap, convenient way for users to book and use transportation services (Rodrigue, 2020; Utriainen & Pöllänen, 2018; Wang et al., 2020).

Second, the destruction of established business models, namely disruptive innovation theory has a focus on destroying pre-existing businesses, where traditional business models are disrupted by ride-hailing services that connect drivers and passengers directly through digital platforms. This reduces the need for phone calls or waiting curbside and allows for easier access and more affordable prices (Weiss & Tucker, 2018). Third, enchancingaccessibility and efficiency is a disruptive innovation in transportation that improves accessibility and efficiency by optimizing asset utilization and leveraging digital technology. Online transportation services enable users to quickly and easily book transportation, provide information about prices and travel times, and enchan the overall user experience (Becker et al., 2020: Henao & Marshall, 2019).

Fourth, changing the dynamics of competition, namely disruptive innovation, changing the dynamics of competition in transportation infustry. More traditional business models must adapt or risk losing market share (Andreassen et al., 2018; Priyono et al., 2020; Sjodin et al., 2020). In some cases, traditional transportation companies also adopt online transportation business models to remain competitive (Kanda et al., 2021; Munim, 2019; Polydoropoulou et al., 2020). Fifth, broad social and economic impacts, namely disruption to transportation, have broad social and economic impacts. This includes increased employment opportunities for ride-hailing drivers, changes in consumer behavior, and the potential to improve efficiency and asset use in the overall transportation system (Boateng et al., 2022; Tirachini, 2020). Interpretations of complex disruptive innovation theories will highlight the major changes that occur through the introduction of new technologies. Ride-disruptors have changed the way people travel and use transportation services by prioritizing accessibility, efficiency and convenience.

3. Data Dan Methode

This research is qualitative research and uses a critical paradigm that allows researchers to examine more deeply the phenomenon under study. Data collection for this study was carried out through primary data collection and secondary data. Some of the tools used to obtain primary data are 1) In-depth interviews; 2) Participatory Conservation; 3) Content Analysis; and 4) Case studies (Moser &; Korstjens, 2018). In-depth interviews of this research were conducted with ride-hailing users, drivers, service providers or industry experts to understand in more detail their experiences in using or implementing ride-hailing policies. Some interview guidelines can relate to the changes brought about by online transportation, the challenges faced, the perceived benefits and their impact on traditional transportation.

The next method of data collection is participatory observation of online transportation users or service providers by being actively involved in their daily activities. This allows researchers to observe firsthand how online transportation disrupts conventional transportation systems and understand the changes that occur in user behavior patterns and preferences. In the context of content analysis, this study takes reviews, comments or

responses of online transportation users on online platforms such as applications or websites. It is possible to provide insight into users' experiences and perceptions of ride-hailing, as well as explore the advantages or problems they encounter. The last data collection technique is a case study conducted on online transportation companies or individual users in the face of disruptive changes in transportation. It involves an in-depth analysis of business strategy, customer experience or changes in operational models.

This research data analysis technique refers to several things as follows: 1) Theme analysis; 2) Narrative analysis; 3) Content analysis; 4) Comparative analysis; and 5) Analysis of behavior patterns (Gaur &; Kumar, 2018). The use of data analysis techniques is used to answer the research objectives described in the previous section. First, thematic analysis identifies the main themes that emerge from the data that has been collected (Castleberry &; Nolen, 2018). In the context of online transportation disruption includes changes in user behavior, the advantages and challenges of online transportation, the impact on traditional industries and aspects that drive technological change. Second, narrative analysis is analyzing the structure of story content found in qualitative data such as interviews or observations (Josselson &; Hammack, 2021). Researchers identify narrative elements that reflect changes and experiences of ride-hailing users and connect them to broader themes.

Third, content analysis is based on reviews, comments or responses of transportation users collected from online platforms. Researchers identify common patterns, user sentiments and benefits and challenges. Fourth, comparative analysis compares the differences and similarities between online transportation users and traditional transportation. Researchers compared the experiences, satisfaction, preferences, and impact of these two types of transportation. Fifth, behavioral pattern analysis is identifying patterns of behavior of online transportation users through qualitative data collected. For example, researchers can look at how users own and book rides, how they interact with apps, and how ride-hailing affects changes in emerging consumer behavior.

This research is a qualitative research as well as using a critical paradigm that allows researchers to examine more deeply the phenomenon under study. The collection of data for this research was carried out using the indepth interview method and literature study of supporting documents in the study. The informant determination technique

of this study is snowball sampling based on key informants interviewed in this study. Indepth interviews of this study were conducted for eight months and contained several research informants. The names of the informants are presented in table 1.

Table 1. Research Informants

Table 1. Research informatics		
No	Informant	Public Office
1	Gus Fandi Akhmad Yani	Regent of Gresik Regency
2	Nyai Mundjidah Wahab	Regent of Jombang Regency
3	H. Armuji	Deputy Mayor of Surabaya
4	H. Charles Meikyansyah	Commission XI of the House of Representatives of the Republic of East java
5	Faris Widiyatmoko	Experts of Commission XI of the House of Representatives of the Republic of East java
6	Hj. Anik Maslachah	Deputy Speaker of the DPRD of East Java Province
7	Candra Hidayat	Expert Deputy Speaker of the East Java Provincial DPRD
8	Muhammad Yusuf Ibnu	Deputy General Secretary of HIPMI East Java Province
9	Fauzan	Experts of Commission D of the Surabaya City DPRD
10	Basa Alim Tualeka	Supervisory Board of the East javan Chamber of Commerce
11	Muhammad Lutfi	Chairman of HIPMI Surabaya City
12	Andrew Rafael	East javan Ministry of Home Affairs

The importance of using key informants contains the following: 1) Getting perspectives from key actors, informants of online transportation service companies, and users providing direct perspectives on green accounting practices applied in online transportation. They are knowledgeable about internal policies and steps taken to reduce environmental impact; 2) Understanding the challenges and opportunities, informants provide insight into the challenges faced in implementing green accounting in online transportation. They reveal opportunities and incentives that drive companies and individuals; 3) Identify best practices, namely informants can share best practices and successful experiences in implementing green accounting in online transportation; 4) Validation of data and findings that directly involve informants in research to be able to validate the data and findings obtained; 5) Further developments in research i.e. giving informants the opportunity to develop new insights and identify more in-depth research areas.

The total informants in this study included 112 informants, and 12 of them were public officials. The selection of informants used stakeholder analysis and snowball sampling which resulted in 112 informants of the study. Furthermore, the results of the indepth interview are classified and reduced data so that it can be used as a whole as research data. The object of this study is the study of online transportation in East java. The use of East Java locations is due to the very complex transportation problems, especially the very minimal readi

ness of the government to prevent the adverse effects of disruption.

4. Result

Transformation of Online Transportation in East Iava

The author analyzes that online transportation in East java, which in this case is four-wheeled and two-wheeled vehicles that are so disruptive in the transportation sector, appeared when one of the founders of GoTo (Gojek previously) returned to East java after completing his studies at Harvard. The founder of GoTo is Nadiem Makarim who is the son of Nono Anwar Makarim who also completed his studies at Harvard University. Researchers observed that after Nadiem Makarim's return from his studies, disruptive innovation brought disruptive innovation to East java and certainly disrupted transportation in East java. One of Nadiem Makarim's colleagues who also studied at Harvard University is Anthony Tan who is the founder of Grab online transportation. Both figures if we observe that the ability of innovation possessed carefully calculates the theoretical use and ownership of the capital used. Online transportation immediately took the slow-paced market menaknism and was exchanged for the high-level innovation of the two figures.

More or less in 2014 GoTo (previously Gojek) received an investment offer and in 2019 the valuation value has reached Rp 141 trillion and its competitor Grab reached Rp 158.6 trillion. Researchers observed that disruptive innovation occurs when

the valuation value of online transportation beats mass transportation using private capital ownership. The results of the researcher's indepth interview with Gus Yani as the Regent of Gresik explained as follows:

"We cannot prevent online transportation, especially like GoTo and Grab. This applicator provides a high usability value for the public so that people can also judge that online transportation is better than conventional transportation. We as public officials certainly support a policy that benefits the wider community, and we must also make improvements to our mass transportation." (Interview conducted at Gus Yani's residence on June 16, 2022)

Based on the results of the interview, online transportation accommodates people's needs better than conventional transportation. This is in line with the statement explained by Nyai Mundjidah Wahab as the Regent of Jombang as follows:

"Public officials are a mandate from the people so as long as they have a good impact on the community, of course we support it. I see online transportation legality is still a matter of debate, but during the Covid-19 pandemic from 2019 to 2021, online transportation was very helpful." (Interview conducted at jombang regency pavilion on June 27, 2022)

The results of the two interviews explained upfront show that online transportation has a high benefit value, including during the Covid-19 pandemic. The intensity of online transportation carried out by GoTo and Grab is expanded in the segmentation of food delivery, delivery of goods, to the service sector. Meanwhile, conventional transportation such as conventional taxis, lyn, bajaj, and inner-city buses seems to be only witnessing the increase generated by online transportation. Furthermore, conventional transportation which in this case as an incumbent prefers to sue the government about the regulation of mass transportation. Batam City is one of the regions in East java that opposes online transportation (Andini & Akbar, 2020).

At the beginning of its appearance, Grab's applicators refused to be classified as online transportation. The logical reason stated is that Grab is the same as marketplace applicators such as Tokopedia, Shopee, Lazada which provide application services as well as bringing together someone who has a means of transportation production with a consumer who needs transportation. Furthermore, the legality does not regulate the exact nature of the classification of the online transportation business arrangement, Grab argues that they do not have a transportation fleet and they do not have a fixed driver like conventional transportation. The East javan Business Competition Supervisory Commis-

sion (KKPU) assesses that this has the potential to occur monopoly practices in its business mechanisms. This online transportation anomaly was resolved through the decision of PN South Jakarta Number 468/Pdt.P/2020/PM JKT. SEL explained that it was not proven that Grab's applicators committed monopolistic acts in accordance with the indictment from the Business Competition Supervisory Commission (KPPU) (PN, 2020). Furthermore, KPPU appealed to the Supreme Court which was further decided in the Supreme Court Decision Number 485 K/Pdt-Sus-KPPU/2021 which explained that it rejected the application from the Applicant for Cassation of the Business Competition Supervisory Commission (KPPU) (MA, 2021).

The phenomenon of online transportation transformation shows a positive and negative impact on society. The results of the interview conducted with Faris Widiyatmoko as an Expert of Commission XI of the DPR RI explained that:

"The implementation of policies that underlie online transportation is still very weak, but in terms of people's needs for the services provided, this is very strong. This is a dilemma for policyholders to actively accelerate arrangements in each region. We as intellectuals must be able to choose and sort by the types of services needed by society, and I personally disagree if we have to maintain something whose needs are reduced in society, meaning that conventional transportation must keep up with technological developments like the innovations made by online transportation." (Interview conducted on July 18, 2022 in Krian, Sidoarjo Regency)

Based on the results of the interview, it can be explained that conventional transportation should be able to innovate to change the way businesses can compete with online transportation. The results of a similar interview were explained by Muhammad Lutfi as Chairman of HIPMI Surabaya City as follows:

"Online transportation is very helpful for the community, besides that the low price is also in the spotlight. As we know, conventional lyn transportation, for example, can only complete trips in certain locations and often does not stop at the location desired by transportation users. This is the business path as you said earlier, which is the business road for new entrants to be able to compete in transportation services." (Interview conducted at Kanpt BPD HIPMI Surabaya City on August 18, 2022).

The results of the interview that has been conducted refer to a conclusion that conventional transportation that wants to survive in transportation services must be able to innovate at least the fundamental business mechanisms carried out. It aims to be able to survive in the disurption pro-

duced by the new entrants. Although in a further review Majumdar et al., (2018) concluded that online-based businesses will dominate the retail business and the level of education will be influenced by the use of technology in each country. Analysis of externalities can produce very rapid changes and give rise to high unemployment rates for those who are lagging behind in ongoing business mechanisms.

New Entrant's Resilience Factor in Mass Transportation

The success of new entrants in online transportation is inseparable from the role of innovation that is very disruptive (Kumaraswamy et al., 2018; Vergara & Pasola, 2021). The innovations used by the new entrants test the business fundamentals of each incumbent actor, where business behavior applies methods that are made very easy, efficient and cheap. The innovation carried out must certainly contain specific comparative advantages so that the usability value is higher. New entrants use innovation sustainably and dare to take risks to start using their innovations. This requires a logical reason for the choice of business methods applied by the new entrant.

Based on the theoretical device described by Christensen et al., (2018) shows that successful new entrants are those that go through disruption to old mechanisms. Researchers observe that this cannot be applied thoroughly, at least because new entrants will always require high capital in carrying out innovation activities. The problem is that the incumbent does not have enough capital to completely disrupt the market, the new entrant has to cooperate with some incumbents who already have established capital to carry out the idea of disruption. In this case the researcher contradicts Christensen's view of classifying separately between the incumbent and the new entrant. The researchers' observations are in line with the view of Cozzolino & Rothaermel (2018) who explained that incumbent companies invest and allocate resources for disruption efforts, while failed incumbents are incumbents who do not invest resource allocations for disruption efforts. This indicates that capital ownership determines the success pattern of disruptive innovations, not only in incumbents but also in new entrants who logically have to use the power of capital to disrupt market mechanisms.

The ability of new entrants to raise capital is logically influenced by how high the impact of possible innovations in society is. GoTo and Grab get

high seed funding at least due to innovations that can be developed more widely than just transportation. Another proof is in the search company Yahoo which has been digitized almost simultaneously with Google, but Yahoo has not been able to survive to attract more public attention. The limitations of innovation that Yahoo has made it to grow and get investment in the company's development support. This is in accordance with the interview conducted by Candra Hidayat as an Expert for the Deputy Speaker of the East Java DPRD as follows:

"The best defense to prevent the adverse effects of disruption is actually not enough just change or digitization. This proof is seen in the search company Yahoo which can be said to be unable to compete with Google. Furthermore, Yahoo has digitized, they have also recruited qualified power providers in their fields. Today it seems that Yahoo is unable to give investors confidence about the company's future." (Interview conducted at dpw PKB East Java Office on September 27, 2022)

Based on the results of the interview, it shows that to overcome the adverse effects of disruption, digitalization is not enough, it also requires future projections and good trust so that investors can support the innovations carried out. Without investor support, the impact of innovation will not be as effective as online transportation like the disruption carried out by the Yahoo search company.

Based on the results of the interpretation of the data that has been explained upfront, this study seeks to contribute to the thinking of disruption and online transportation in East java. New entrants involved in ride-sharing maintain innovations that undermined previous economic fundamentals (Deighton-Smith, 2018; Ganapati & Reddick, 2018; Kauffman & Naldi, 2020; Prassl, 2018). New entrant managed to take market segmentation at least a few years after its emergence, the resulting innovations gave high confidence to the future of the company (Anagnostopoulos, 2018; Kotler et al., 2019; Palmie et al., 2020). This correlates with the acceleration of the company's valuation value due to investors' interest in joining the innovation. Furthermore, these investors can actually be categorized as incumbents who have no innovation, but they think and change their mindset so that they predict that online transportation companies GoTo and Grab will have good prospects in the future.

Based on the results of the interview, it shows that the government fully supports services that have enormous use for the community

(Kabadayi et al., 2020). There will always be externalities of a change including a high unemployment rate, this is because the incumbents are not willing to adjust according to the demands of economic activity that has generally changed. Incumbents who are determined to stay afloat by not using innovation, then other academics believe that the economic realm will be selected (Adner & Lieberman, 2021; Halaburda & Sarvary, 2022).

The legality of the law in East java has not been able to reach out to prevent the negative impact of disruption so that in the future it is possible for other forms of disruption to disrupt economic stability in East java. Given the importance of critical discourse on disruption that does not only occur in the transportation sector, but extends to all sectors (Borowiak, 2019; Legacy et al., 2019; Singh et al., 2021). This research seeks to provide logical literature as a consideration of the contribution of new entrants and incumbents in the critical discourse of online transportation in East java.

This research has limitations, namely research informants who include stakeholder analysis and do not conduct wider interviews with the people of each region in East java. However, stakeholder analysis does not close the space to obtain valid data and credibility (Lee, 2021; Marbouh et al., 2020). The object of this study is also limited to online transportation, while the disruption that occurs does not only limit it. The broader context of the object is possible in the discussion of disruption in various countries for example in debates between developing and developed countries (Butt, 2022; Gouda & Saranga, 2018). Further research is expected to fill in the gaps of other multidisciplinary objects and the use of more complex data. Apart from this, the use of different methods will also potentially result in different theorems.

Interpretation Environmental Accounting Strategy

In the context of online transportation in East java, the application of environmental accounting strategy is still very lacking. Liberal economic orientation is still the main point in doing business in East java, it should be an important step starting from making special legality to prioritize environmentally friendly concepts. Based on the results of interviews conducted with Fauzan as an expert of the DPRD Commission D of Surabaya City as follows:

"Indeed, we must have a special view on the integrity of the environment, especially in transportation arrangements in East java. The application of every company's budget to improve the environment must still be implemented, maybe there is already some kind of CSR but in terms of financial statements also require serious funding allocations." (The interview was conducted at Cafe Excelso on June 18, 2022 at 13.00 WIB)

Based on the results of interviews show that apart from CSR budgeting, the private sector must also be serious in allocating funding that allows for the revitalization of negative impacts on the environment. This is in line with the statement from Armudji as Deputy Mayor of Surabaya as follows:

"Stigma about environmental sustainability must come first, but the context in online transportation is now different because in terms of legal legality alone it still overlaps. Of course, this legality has not entered into the concept of environmental ecological integrity, I believe that after the process of determining the legality of legislation is carried out, the next stage is the ecological mainstreaming of the environment." (The interview was conducted on August 9, 2022 at 17:00 WIB)

The context of online transportation in East java is experiencing a crisis of legal legality caused by disruptions that occur. The next step that can be applied after the establishment of valid legal legality is the mainstreaming of the ecological integrity of the environment by requiring every transportation company to contribute to reducing the negative impacts of its business activities.

The application of green accounting has the potential to increase company profitability, this is based on the significant influence that indirectly increases profitability (Erlangga et al., 2021). This increase is due to the positive image built in society so as to make a good comparative advantage. Putri et al., (2019) analyzed that: 1) Green accounting and environmental performance are significant to ROA; and 2) Green accounting is significant to ROE.

5. Discussions

Green accounting, as an approach to measuring, reporting, and managing the environmental impact of business activities, has become an important issue in the context of online transportation (Di Vaio &; Varriale, 2018; Hasan et al., 2019). However, a critical look at green accounting practices in online transportation highlights several questions and challenges to consider (Mattoni et al., 2018; Meng et al., 2019). In this discussion, a critical view will be examined that asks questions about the effectiveness, policies, and implications of green accounting practices in online transportation.

A critical view raises concerns about the effectiveness of measurement and reporting in green

accounting. To what extent can the measurement methods used provide an accurate picture of the environmental impact of ride-hailing services? How do ride-hailing companies verify and validate the data they report? This question highlights the need for clear and consistent standards in the measurement and reporting of rides' environmental impact. A critical look also raises questions about the policy and regulatory influence of green accounting in ride-hailing. Are there policies that encourage ride-hailing companies to adopt green accounting practices? How does regulation affect the company's commitment and performance in reducing environmental impact? This discussion highlighted the need for an active role from governments and regulators to encourage and supervise green accounting practices in online transportation.

The critical outlook also underscores the importance of engaging stakeholders and public participation in ride-hailing green accounting (Ajao &; Sadeeq, 2023; Glaser &; Krizek, 2021). What is the role and influence of drivers, passengers, and the general public in the development of green accounting policies and practices? How are aspects of participation and transparency considered in decision-making processes related to green accounting in ride-hailing? This question emphasizes the need for broader stakeholder inclusion and open dialogue in the formation of more effective green accounting practices. A critical look at green accounting in online transportation raises important questions about effectiveness, policy, social and economic implications, and public participation (Ge et al., 2021). This discussion provides important insights to consider broader perspectives in developing green accounting practices in online transportation. With this critical view, the development of green accounting policies and practices can be more comprehensive, have a positive impact socially and environmentally, and pay more attention to fairness and sustainability in online transportation.

6. Conclussion And Suggestion

Conclussion

In the context of ride-hailing, green accounting offers a comprehensive framework for identifying and measuring environmental impacts, including greenhouse emissions, energy use, and waste management. Green accounting practices also encourage online transportation companies to adopt

environmentally friendly strategies and technologies such as the use of electric vehicles, route optimization, and efficient logistics management. However, it must be admitted that the implementation of green accounting in online transportation still faces challenges. Achieving environmental sustainability requires consistent and transparent standards and strong oversight mechanisms to ensure the validity and integrity of the reports produced. In addition, public awareness and participation are also important to promote broader green accounting practices and encourage positive change in the ride-hailing industry.

Suggestion

This research is limited to a research locus that tends to be narrow with a broad use of themes. Further research is recommended to be able to expand the locus of research at the level of developing and developed countries so as to produce more varied findings. Including some of the rejections that occur in developed countries about disruptive online transportation.

References

- Adner, R., & Lieberman, M. (2021). Disruption Through Complements. *Strategy Science*, 6(1), 91–109.
- Agamez-Arias, A.-M., & Moyano-Fuentes, J. (2017). Intermodal Transport In Freight Distribution: A Literature Review. *Transport Reviews*, 37(6), 782–807.
- Ajao, Q., & Sadeeq, L. (2023). An Approximate Feasibility Assessment of Electric Vehicles Adoption in Nigeria: Forecast 2030. *ArXiv Preprint ArXiv*:2305.17844.
- Akhir, K. (2020). Modul Business Leadership.
- Anagnostopoulos, I. (2018). Fintech and Regtech: Impact on Regulators and Banks. *Journal of Economics and Business*, 100, 7–25.
- Andini, C., & Akbar, D. (2020). Tantangan Pariwisata pada Wilayah Perbatasan dalam Era Disrupsi Teknologi: Studi Kasus Regulasi Transportasi Online di Kota Batam, Kepulauan Riau. *Indonesian Journal of Tourism and Leisure*, 1(2), 73–81. https://doi.org/10.36256/ijtl.v1i2.102
- Ausrianti, R., Andayani, R. P., Surya, D. O., & Suryani, U. (2020). Edukasi Pencegahan Penularan Covid 19 Serta Dukungan Kesehatan Psikososial Jiwa dan pada Pengemudi Ojek Online. Jurnal Peduli

- Masyarakat, 2(2), 59-64.
- Besinovic, N. (2020). Resilience in Railway Transport Systems: A Literature Review and Research Agenda. *Transport Reviews*, 40(4), 457–478.
- Bilal, M., Suharno, S., & Dewi, N. (2021). Pelaksanaan Peraturan Menteri Perhubungan RI No. 18 Tahun 2020 tentang Pengendalian Transportasi dalam Rangka Pencegahan Covid 19. *Jurnal Supremasi*, 115–129.
- Borowiak, C. (2019). Poverty in Transit: Uber, Taxi Coops, and the Struggle Over Philadelphia's Transportation Economy. *Antipode*, 51(4), 1079–1100.
- Butt, A. S. (2022). Understanding the Implications of Pandemic Outbreaks on Supply Chains: An Exploratory Study of the Effects Caused by the COVID-19 Across Four South Asian Countries and Steps Taken by Firms to Address the Disruptions. *International Journal of Physical Distribution & Logistics Management*, 52(4), 370–392.
- Callander, S., & Matouschek, N. (2022). The Novelty of Innovation: Competition, Disruption, and Antitrust Policy. *Management Science*, 68(1), 37–51.
- Castleberry, A., & Nolen, A. (2018). Thematic Analysis Of Qualitative Research Data: Is It As Easy As It Sounds? *Currents in Pharmacy Teaching and Learning*, 10(6), 807–815.
- Christensen, C. M., McDonald, R., Altman, E. J., & Palmer, J. E. (2018). Disruptive Innovation: An Intellectual History and Directions for Future Research. *Journal of Management Studies*, 55(7), 1043–1078.
- Cozzolino, A., & Rothaermel, F. T. (2018). Discontinuities, Competition, and Cooperation: Coopetitive Dynamics Between Incumbents and Entrants. *Strategic Management Journal*, 39(12), 3053–3085.
- Deighton-Smith, R. (2018). The Economics of Regulating Ride-Hailing and Dockless Bike Share.
- Demir, E., Huang, Y., Scholts, S., & Van Woensel, T. (2015). A Selected Review On The Negative Externalities Of The Freight Transportation: Modeling And Pricing. *Transportation Research Part E: Logistics and Transportation Review*, 77, 95–114.
- Di Vaio, A., & Varriale, L. (2018). Management Innovation For Environmental Sustainability In Seaports: Managerial Accounting Instruments And Training For Competitive Green Ports Beyond The Regulations. Sustainability, 10(3), 783.

- Erlangga, C. M., Fauzi, A., & Sumiati, A. (2021).

 Penerapan Green Accounting dan Corporate
 Social Responsibility Disclosure Terhadap
 Nilai Perusahaan Melalui Profitabilitas.

 Akuntabilitas, 14(1), 61–78.

 https://doi.org/10.15408/akt.v14i1.20749
- Ganapati, S., & Reddick, C. G. (2018). Prospects and Challenges of Sharing Economy for The Public Sector. *Government Information Quarterly*, 35(1), 77–87.
- Gaur, A., & Kumar, M. (2018). A Systematic Approach To Conducting Review Studies: An Assessment Of Content Analysis In 25 Years Of IB Research. *Journal of World Business*, 53(2), 280–289.
- Ge, T., Hao, X., & Li, J. (2021). Effects Of Public Participation On Environmental Governance In China: A Spatial Durbin Econometric Analysis. *Journal of Cleaner Production*, 321, 129042.
- Glaser, M., & Krizek, K. J. (2021). Can Street-Focused Emergency Response Measures Trigger A Transition To New Transport Systems? Exploring Evidence And Lessons From 55 US Cities. Transport Policy, 103, 146– 155.
- Gouda, S. K., & Saranga, H. (2018). Sustainable Supply Chains for Supply Chain Sustainability: Impact of Sustainability Efforts on Supply Chain Risk. *International Journal of Production Research*, *56*(17), 5820–5835.
- Halaburda, H., & Sarvary, M. (2022). *Beyond Bitcoin*. Springer.
- Hasan, M. M., Nekmahmud, M., Yajuan, L., & Patwary, M. A. (2019). Green Business Value Chain: A Systematic Review. *Sustainable Production and Consumption*, 20, 326–339.
- Josselson, R., & Hammack, P. L. (2021). Essentials of Narrative Analysis. American Psychological Association.
- Kabadayi, S., O'Connor, G. E., & Tuzovic, S. (2020). The Impact of Coronavirus on Service Ecosystems as Service Mega-Disruptions. *Journal of Services Marketing*, 34(6), 809–817.
- Kasali, R. (2019). Disruption 'Tak Ada YangTak Bisa Diubah Sebelum Dihadapi Motivasi Saja Tidak cCukup'.
- Kauffman, R. J., & Naldi, M. (2020). Research Directions for Sharing economy issues. *Electronic Commerce Research and Applications*, 43, 100973.
- Kotler, P., Kartajaya, H., & Setiawan, I. (2019). *Marketing 3.0: From products to customers to the human spirit.* Springer.

- Kumaraswamy, A., Garud, R., & Ansari, S. (2018). Perspectives on disruptive innovations. *Journal of Management Studies*, 55(7), 1025–1042
- Latifah, E. (2019). Peran Akuntan Syariah Di Era Disruption. *Al-Musthofa: Journal of Sharia Economics*, 2(1), 15–29.
- Latifah, & Soewarno, N. (2023). The Environmental Accounting Strategy and Waste Management to Achieve MSME's Sustainability Performance. Cogent Business and Management, 10(1).
 - https://doi.org/10.1080/23311975.2023.21764 44
- Lee, C. (2021). Factors Influencing the Credibility of Performance Measurement in Nonprofits. *International Review of Public Administration*, 26(2), 156–174.
- Legacy, C., Ashmore, D., Scheurer, J., Stone, J., & Curtis, C. (2019). Planning the Driverless City. *Transport Reviews*, 39(1), 84–102.
- MA, R. I. (2021). Putusan Mahkamah Agung Nomor 485 K/Pdt.Sus-KPPU/2021.
- Mahto, R. V, Belousova, O., & Ahluwalia, S. (2020). Abundance-A New Window On How Disruptive Innovation Occurs. *Technological Forecasting and Social Change*, 155, 119064.
- Majumdar, D., Banerji, P. K., & Chakrabarti, S. (2018). Disruptive Technology and Disruptive Innovation: Ignore at Your Peril! *Technology Analysis & Strategic Management*, 30(11), 1247–1255.
- Marbouh, D., Abbasi, T., Maasmi, F., Omar, I. A., Debe, M. S., Salah, K., Jayaraman, R., & Ellahham, S. (2020). Blockchain for COVID-19: Review, Opportunities, and a Trusted Tracking System. *Arabian Journal for Science and Engineering*, 45, 9895–9911.
- Mattoni, B., Guattari, C., Evangelisti, L., Bisegna, F., Gori, P., & Asdrubali, F. (2018). Critical Review And Methodological Approach To Evaluate The Differences Among International Green Building Rating Tools. Renewable and Sustainable Energy Reviews, 82, 950–960.
- Meng, F., Liu, G., Liang, S., Su, M., & Yang, Z. (2019). Critical Review Of The Energy-Water-Carbon Nexus In Cities. *Energy*, 171, 1017–1032.
- Moser, A., & Korstjens, I. (2018). Series: Practical Guidance To Qualitative Research. Part 3: Sampling, Data Collection And Analysis. *European Journal of General Practice*, 24(1), 9–18.

- Nasution, E. Y., Hariani, P., Hasibuan, L. S., & Pradita, W. (2020). Perkembangan Transaksi Bisnis E-Commerce terhadap Pertumbuhan Ekonomi di Indonesia. *Jesya (Jurnal Ekonomi Dan Ekonomi Syariah)*, 3(2), 506–519.
- Palmie, M., Wincent, J., Parida, V., & Caglar, U. (2020). The Evolution of the Financial Technology Ecosystem: An Introduction and Agenda for Future Research on Disruptive Innovations in Ecosystems. *Technological Forecasting and Social Change*, 151, 119779.
- Pan, S., Yan, H., He, J., & He, Z. (2021). Vulnerability and Resilience of Transportation Systems: A Recent Literature Review. *Physica A: Statistical Mechanics and Its Applications*, 581, 126235.
- Petzold, N., Landinez, L., & Baaken, T. (2019). Disruptive Innovation From a Process View: A Systematic Literature Review. *Creativity and Innovation Management*, 28(2), 157–174.
- PN, J. S. (2020). Putusan PN Jakarta Selatan 468/PDT.P/2020/PN JKT.SEL.
- Prassl, J. (2018). *Humans as a Service: The Promise and Perils of Work in the GIG Economy*. Oxford University Press.
- Putri, A. M., Hidayati, N., & Amin, M. (2019).

 Dampak Penerapan Green Accounting dan Kinerja Lingkungan Terhadap Profitabilitas Perusahaan Manufaktur Di Bursa Efek Indonesia. *Jurnal Ilmiah Riset Akuntansi*, 8(04).
- Qu, Y., Bektaş, T., & Bennell, J. (2016). Sustainability SI: Multimode Multicommodity Network Design Model For Intermodal Freight Transportation With Transfer And Emission Costs. *Networks and Spatial Economics*, 16, 303–329.
- Rodrigue, J.-P. (2020). *The Geography Of Transport Systems*. Routledge.
- RS, P. H. (2023). Monograf Model Self Disruption: Pola Perubahan Prilaku dan Mindset Generasi Milineal Sebagai Pelaku Ekonomi di Indonesia. umsu press.
- Santosa, S. (2021). Urgensi Peran Orang Tua Membangun Kepemimpinan Anak Di Era Disrupsi Teknologi Berdasarkan Ulangan 6: 6-9. EDULEAD: Journal of Christian Education and Leadership, 2(1), 71–88.
- Santoso, T., & Wardhani, J. V. B. (2018). Analisa Model Bisnis Radio Suara Surabaya dan Pengembangannya di Era Disruptive Technology. *Jurnal Manajemen Dan Kewirausahaan*, 6(2), 115–121.
- Setiyono, W. P., & Prapanca, D. (2021). Buku Ajar

- Financial Technology. Umsida Press, 1-195.
- Singh, S., Kumar, R., Panchal, R., & Tiwari, M. K. (2021). Impact of COVID-19 on Logistics Systems and Disruptions in Food Supply Chain. *International Journal of Production Research*, 59(7), 1993–2008.
- Sugiarto, A. (2018). *Synergy Way of Disruption*. Gramedia Pustaka Utama.
- Suripto, T. (2019). Kajian Literatur Efektifitas Pemasaran Produk Dengan Menggunakan Sistim Online Marketing di Era Disruption. *JESI (Jurnal Ekonomi Syariah Indonesia)*, 8(2), 120–128.
- Suteja, J., & Pasundan, U. (2020). Era Disruption: Esok Menjadi hari ini. *No. June*, 4.
- Tuti, R. W. (2020). Analisis Implementasi Kebijakan Work From Home pada Kesejahteraan Pengemudi Transportasi Online di Indonesia. *Transparansi: Jurnal Ilmiah Ilmu Administrasi*, 3(1), 73–85.
- Utriainen, R., & Pöllänen, M. (2018). Review On Mobility As A Service In Scientific Publications. Research in Transportation Business & Management, 27, 15–23.
- Vergara, & Pasola, J. (2021). Clarifying The Disruptive Innovation Puzzle: A Critical Review. European Journal of Innovation Management, 24(3), 893–918.
- Wang, Y., Wang, S., Wang, J., Wei, J., & Wang, C. (2020). An Empirical Study Of Consumers' Intention To Use Ride-Sharing Services: Using An Extended Technology Acceptance Model. *Transportation*, 47, 397–415.
- Yin, J., Ren, X., Liu, R., Tang, T., & Su, S. (2022). Quantitative Analysis for Resilience-Based Urban Rail Systems: A Hybrid Knowledge-Based and Data-Driven Approach. *Reliability Engineering & System Safety*, 219, 108183.